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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,769	07/17/2003	John Richard Boylan	06256P USA	1707

23543 7590 10/02/2006

AIR PRODUCTS AND CHEMICALS, INC.  
PATENT DEPARTMENT  
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ALLENTOWN, PA 181951501

EXAMINER

SALVATORE, LYNDIA

ART UNIT PAPER NUMBER

1771

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/621,769

Applicant(s)

BOYLAN, JOHN RICHARD

Examiner

Lynda M. Salvatore

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's amendment and accompanying remarks filed 7/10/06 have been fully considered and entered. Claim 1 has been amended as requested. Applicant's amendment to claim 1 is found sufficient to overcome the 112 2<sup>nd</sup> paragraph rejection set forth in section 4 of the last Office Action. As such, this rejection is withdrawn. Applicant's arguments are found persuasive to overcome the obviousness rejection of claims 1-8 made over the GB specification in section 6 of the last Office Action. As such, this rejection is hereby withdrawn. However, upon further consideration the following new ground of rejection is set forth herein below.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being obvious over Sawyer et al., US 3,369,932 in view of Mao et al., EP 0 841 351 A2.

The patent issued to Sawyer et al., teach a wax-polymer emulsion blend suitable to film coat paper, cloth and fibers (column 1, 10-35 and column 5, example 1). Said blend is moisture-vapor resistant and exhibits unexpectedly improved toughness, flexibility, tensile strength, elongation and resistance to cracking at low temperatures (column 1, 25-30 and column 2, 50-65). With regard to claims 5 and 6, Sawyer et al., teach employing various waxes including paraffin wax in amounts ranging between 0 and 70wt.% (column 4, 35-45). The amount of polymer emulsion ranges from 5-50wt. % (column 4, 35-40).

Sawyer et al., fail to teach the claimed polymer emulsion, however, the published EP document to Mao et al., teach an adhesive composition comprising the claimed polymer emulsion in the claimed amounts having the claimed glass transition temperature range (abstract, page 3, 54-60, page 4, 5-15). The adhesive composition exhibits properties such as the ability to form an excellent bond, balance of peel, cohesive strength, enhanced thermal and hydrolytic stability (page 3, 29-42). Said adhesive is used to fabricate paper labels and laminating polymeric films (page 2, 1-10).

With regard to claim 8, Mao et al., teach adding methacrylic acid (page 4, 45-47) but not ethylene acrylic acid, however, it is the position of the Examiner that absent unexpected results to the contrary, methylene and ethylene acrylic acid are considered interchangeable constituents since they are similar in chemistry and functionality.

The wax-polymer emulsion blend taught by the combination of prior art does not specifically teach the claimed hydrostatic head properties recited in claims 1 and 4, however, it is reasonable to presume wax-polymer emulsion blend provided by the combination of prior art would exhibit the claimed properties. Support for said presumption is found in the use of like materials such as the claimed wax emulsion and polymer emulsion constituents. Applicant is invited to evidence otherwise.

Therefore, motivated by the desire to provide a film with excellent bond, peel, cohesive strength and stability, it would have been obvious to one having ordinary skill in the art at the time the invention was made to formulate the wax-resin emulsion film coating composition taught by Sawyer et al., with the specific polymer emulsion composition disclosed in the EP document to Mao et al.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M. Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 25, 2006

ls

A handwritten signature in black ink, appearing to read 'Lynda M. Salvatore', written over the 'ls' text.